

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
22 September 2005 (22.09.2005)

PCT

(10) International Publication Number  
**WO 2005/086663 A2**

(51) International Patent Classification: Not classified

(21) International Application Number:  
PCT/US2005/005820

(22) International Filing Date: 23 February 2005 (23.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/548,660 27 February 2004 (27.02.2004) US

(71) Applicant (for all designated States except US): **MERCK & CO., INC.** [US/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ANDERSON, Annaliesa, S.** [GB/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US). **CLARK, Desmond, J.** [US/US]; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US).

(74) Common Representative: **MERCK & CO., INC.**; 126 East Lincoln Avenue, Rahway, New Jersey 07065-0907 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: POLYPEPTIDES FOR INDUCING A PROTECTIVE IMMUNE RESPONSE AGAINST STAPHYLOCOCCUS AUREUS

MRDKKGPVNKRVDFLSNKLNKYSIRKFTVGTASILIGSLMYLGTQQEAAEAENNIENPTTLK  
DNVQSKEVKIEEVTKNDTAPQGVAKSEVTSNKDTIEHEPSVKAEDISKEDTPKEVADVAE  
VQPKSSVTHNAETPKVRKARSVDEGSFDITRDSKNVVESTPTITIQQKEHFEYGSVDIQKKP  
TDLGVSEVTRFNVGNESNGLIGALQLKNKIDFSKDFNFKVRVANNHQSNTTGADGWGFLFSK  
GNAEEYLTNGGILGDKGLVNSGGFKIDTGYIYTSSMDKTEKQAGQGYRGYGAFAVKNDSSGNS  
QMVGENIDKSKTNFLNYADNSTNTSDGKFHQRNLNDVILTYVASTGKMRAEYAGKTWETSIT  
DLGLSKNQAYNFLITSSQWGLNQGINANGWMRTDLKGSEFTFTPEAPKTTIELEKKVSEIP  
FKKERKFNPD LAPGTEKVTREGOKGEKTTITPTLKNPLTGVIISKGEPEKEITKDPINELTE  
YGPETIAPGHRDEFDPKLP TGEKEEVP GKPGIKNPETGDVVRPPVDSVT KYGPVKGDSIVEK  
EEIPFEKERKFNPD LAPGTEKVTREGOKGEKTTITPTLKNPLTGVIISKGEPEKEITKDPIN  
ELTEYGPETITPGHRDEFDPKLP TGEKEEVP GKPGIKNPETGDVVRPPVDSVT KYGPVKGDS  
IVEKEEIPFEKERKFNPD LAPGTEKVTREGOKGEKTTITPTLKNPLTGVIISKGESKEEITK  
DPINELTEYGPETITPGHRDEFDPKLP TGEKEEVP GKPGIKNPETGDVVRPPVDSVT KYGPV  
KGDSIVEKEEIPFEKERKFNPD LAPGTEKVTREGOKGEKTTITPTLKNPLTGVIISKGESKE  
EITKDPINELTEYGPETITPGHRDEFDPKLP TGEKEEVP GKPGIKNPETGDVVRPPVDSVT  
YGPVKGDSIVEKEEIPFEKERKFNPD LAPGTEKVTREGOKGEKTTITPTLKNPLTGVIISKG  
ESKEEITKDPVNELTEFGGEKIPQGHKIDFDPNLPTDQTEKVP GKPGIKNPDTGKVIEEPVD  
DVIKHGPKTGTPETKTVEIPFETKREFNPKLPQGEERVKQEGQPGSKTITPTITVNPLTGEK  
VGEGQPTTEEITKQPVDKIVEFGGEKPKDPKGPENPEKPSRPTHPSGPVNPNNPGLSKDRAP  
NGPVHSMKNDKVKKSKIAKESVANQEKKRAELPKTGLESTQKGLIFSSIIIGIAGLMLLARR  
RKN

(57) Abstract: The present invention features polypeptides comprising an amino acid sequence structurally related to SEQ ID NO: 1 and uses of such polypeptides. SEQ ID NO: 1 is a truncated derivative of a full length *S. aureus* polypeptide. The full-length polypeptide is referred to herein as full length "ORF0594". A His-tagged derivative of SEQ ID NO: 1 was found to produce a protective immune response against *S. aureus*.

WO 2005/086663 A2



---

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*